

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

In re Patent Application of	)	
	)	
John K. GALLANT et al.	)	Mail Stop APPEAL BRIEF - PATENTS
	)	
Application No.: 10/036,667	)	Group Art Unit: 2617
	)	
Filed: December 21, 2001	)	Examiner: M. Thier
	)	
For: METHOD FOR BILLING IN A	)	
TELECOMMUNICATIONS SYSTEM	)	

U.S. Patent and Trademark Office  
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401 Dulany Street  
Alexandria, VA 22314

**APPEAL BRIEF**

This Appeal Brief is submitted in response to the final Office Action, dated November 16, 2007, and in support of the Notice of Appeal, filed February 13, 2008.

**I. REAL PARTY IN INTEREST**

The real party in interest of the present application, solely for purposes of identifying and avoiding potential conflicts of interest by board members due to working in matters in which the member has a financial interest, is Verizon Communications Inc. and its subsidiary companies, which currently include Verizon Business Global, LLC (formerly MCI, LLC) and Cellco Partnership (doing business as Verizon Wireless, and which includes as a minority partner affiliates of Vodafone Group Plc). Verizon Communications Inc. or one of its subsidiary companies is an assignee of record of the present application.

II. RELATED APPEALS, INTERFERENCES, AND JUDICIAL PROCEEDINGS

Appellants are unaware of any related appeals, interferences, or judicial proceedings.

III. STATUS OF CLAIMS

Claims 1-64, 66-68, and 75-80 are pending in this application.

Claims 1-14, 27-29, 31, 32, 34-37, 61-63, 75-78, and 80 have been rejected under 35 U.S.C. § 103(a) as unpatentable over D'Amico et al. (U.S. Patent No. 5,579,379) in view of Riggins (U.S. Patent No. 6,766,454) and Faccinn et al. (U.S. Patent Application Publication No. 2002/0127995).

Claims 15-17 and 64 have been rejected under 35 U.S.C. § 103(a) as unpatentable over D'Amico et al. in view of Riggins and Faccinn et al. and further in view of Innes (U.S. Patent No. 6,687,743).

Claims 30 and 33 have been rejected under 35 U.S.C. § 103(a) as unpatentable over D'Amico et al. in view of Riggins and Faccinn et al. and further in view of Fletcher et al. (U.S. Statutory Invention Registration No. H1,897).

Claims 38-42 and 66-68 have been rejected under 35 U.S.C. § 103(a) as unpatentable over D'Amico et al. in view of Innes and Faccinn et al.

Claims 43, 44, 47-49, and 79 have been rejected under 35 U.S.C. § 103(a) as unpatentable over D'Amico et al. in view of Riggins and Hluchyj et al. (U.S. Patent No. 6,282,193).

Claims 45 and 46 have been rejected under 35 U.S.C. § 103(a) as unpatentable over

D'Amico et al. in view of Riggins and Hluchyj et al. and further in view of Faccinn et al.

Claims 50 and 51 have been rejected under 35 U.S.C. § 103(a) as unpatentable over D'Amico et al. in view of Riggins and Hluchyj et al. and further in view of Innes.

Claims 18-26 and 52-60 were previously withdrawn from consideration by the Examiner due to a restriction requirement.

Claims 65 and 69-74 were previously canceled without prejudice or disclaimer of the subject matter thereof.

Claims 1-17, 27-51, 61-64, 66-68, and 75-80 are the subject of the present appeal. These claims are reproduced in the Claim Appendix of this Appeal Brief.

#### IV. STATUS OF AMENDMENTS

A non-final Office Action was issued on November 16, 2007. No Amendment was filed subsequent to this non-final Office Action.

#### V. SUMMARY OF CLAIMED SUBJECT MATTER

In the paragraphs that follow, a concise explanation of the independent claims and the claims reciting means-plus-function or step-plus-function language that are involved in this appeal, along with the dependent claims that are argued separately, will be provided by referring, in parenthesis, to examples of where support can be found in the specification and drawings.

Claim 1 recites a method (Figure 2) for placing a call between a first client and a second client, the method comprising: receiving a SIP call request message (Figure 2, 200; page 9, lines 4-8); challenging a device that originated the SIP call request message to authenticate itself, the

device performing a first authentication process based on a username and a password associated with the device to generate a first authentication result as a result of authenticating itself (Figure 2, 202, 204; page 9, lines 10-13); authenticating the SIP call request message by performing a second authentication process based on the username and the password associated with the device to generate a second authentication result and comparing the second authentication result to the first authentication result (Figure 2, 206; page 9, lines 14-18); identifying an authentic originating client when the second authentication result matches the first authentication result (Figure 2, 206; page 9, lines 17-18); searching a database to determine whether the database includes a client billing tag that identifies the authentic originating client as a party responsible for paying for the call (Figure 2, 208; page 9, lines 18-21); authorizing the call to be completed if the client billing tag is included in the database (Figure 2, 214, 216, 218; page 9, lines 21-26); and not authorizing the call to be completed if the client billing tag is not included in the database (Figure 2, 210; page 9, lines 28-31).

Claim 5 recites evaluating a profile of the second client, the profile including information corresponding to at least one calling feature activated by the second client (Figure 3, 304; page 10, lines 10-17).

Claim 11 recites evaluating at least one calling feature activated by the second client (Figure 3, 304; page 10, lines 10-17); determining the authentic originating client based on the at least one calling feature (Figure 3, 306; page 10, lines 18-22); retrieving the client billing tag corresponding to the authentic originating client (Figure 3, 308; page 10, lines 20-23); and inserting the client billing tag corresponding to the authentic originating client into the SIP call request message (Figure 3, 310; page 10, lines 23-25).

Claim 15 recites adding a header to the SIP call request message, the header including a server identifier (Figure 4, 406; page 11, lines 20-22); and transmitting the SIP call request message to a gateway, the gateway being configured to complete the call if the header is detected and not complete the call if the header is not detected (Figure 4, 408, 410, 412, 414, 416; page 11, lines 22-27).

Claim 16 recites checking the SIP call request message for the presence of a header, the header including a server identifier (Figure 4, 412; page 11, lines 20-24); and completing the call if the header is detected (Figure 4, 414; page 11, lines 23-27).

Claim 27 recites a computer-readable medium having computer executable instructions for performing a method for placing a call between a first client and a second client (page 9, line 31 - page 10, line 5; page 10, line 30 - page 11, line 2; page 11, line 27 - page 12, line 2), the computer-readable medium comprising instructions for receiving a call request message (Figure 2, 200; page 9, lines 4-8); instructions for challenging a device that originated the call request message to authenticate itself, the device generating an authentication result as a result of authenticating itself (Figure 2, 202, 204; page 9, lines 10-13); instructions for authenticating the call request message based on the authentication result to identify an authentic originating client (Figure 2, 206; page 9, lines 14-18); instructions for searching a database to identify whether the database includes a client billing tag that identifies the authentic originating client as a party responsible for paying for the call (Figure 2, 208; page 9, lines 18-21); instructions for not authorizing the call to be completed if the database does not include the client billing tag (Figure 2, 210; page 9, lines 28-31); instructions for authorizing the call to be completed if the database includes the client billing tag (Figure 2, 214, 216, 218; page 9, lines 21-26); instructions for

inserting the client billing tag into the call request message when the call is authorized to be completed (Figure 2, 214; page 9, lines 21-23); and instructions for forwarding the call request message with the inserted client billing tag when the call is authorized to be completed (Figure 2, 216; page 9, lines 21-23).

Claim 28 recites a computer-readable medium having computer executable instructions for performing a method for placing a call between a first client and a second client (page 9, line 31 - page 10, line 5; page 10, line 30 - page 11, line 2; page 11, line 27 - page 12, line 2), the computer-readable medium comprising instructions for receiving, by a SIP server (Figure 1, 102; page 8, lines 13-14), a SIP call request message (Figure 2, 200; page 9, lines 4-8); instructions for challenging, by the SIP server, a device that originated the SIP call request message to authenticate itself, the device generating an authentication result as a result of authenticating itself (Figure 2, 202, 204; page 9, lines 10-13); instructions for authenticating, by the SIP server, the SIP call request message based on the authentication result to identify an authentic originating client (Figure 2, 206; page 9, lines 14-18); instructions for searching, by the SIP server, a database to find a client billing tag that identifies the authentic originating client as a party responsible for paying for the call (Figure 2, 208; page 9, lines 18-21); instructions for inserting, by the SIP server, the client billing tag into the SIP call request message (Figure 2, 214; page 9, lines 21-23); and instructions for transmitting, by the SIP server, the SIP call request message to a gateway (Figure 2, 216; page 9, lines 21-23).

Claim 30 recites that the gateway provides a network operating support system with the client billing tag and call statistics after receiving the SIP call request message from the SIP server (page 9, lines 26-28).

Claim 31 recites a method (Figures 2 and 3) for placing a call between a first client and a second client, the method comprising receiving a SIP call request message from the first client (Figure 2, 200; page 9, lines 4-8); challenging a device that originated the SIP call request message to authenticate itself, the device generating an authentication result as a result of authenticating itself (Figure 2, 202, 204; page 9, lines 10-13); evaluating at least one calling feature in a profile of the second client (Figure 3, 304; page 10, lines 10-17); determining an authentic originating client based on the at least one calling feature and the authentication result (Figure 3, 306; page 10, lines 18-22); retrieving a client billing tag that identifies the authentic originating client as a party responsible for paying for the call (Figure 3, 308; page 10, lines 20-23); and inserting the client billing tag into the SIP call request message (Figure 3, 310; page 10, lines 23-25).

Claim 33 recites providing, by the gateway, a network operating support system with the client billing tag and at least one call statistic after the call is completed (page 10, lines 28-29).

Claim 38 recites a computer-readable medium having computer executable instructions for performing a method for placing a call between a first client and a second client (page 11, line 27 - page 12, line 2), the computer-readable medium comprising instructions for receiving a SIP call request message (Figure 4, 400; page 9, lines 4-8); instructions for adding a header to the SIP call request message, the header including a server identifier to identify a server from which the SIP call request message was received (Figure 4, 406; page 11, lines 20-22); and instructions for transmitting the SIP call request message and the header to a network gateway (Figure 4, 408; page 11, lines 22-27).

Claim 39 recites that the gateway is configured to complete the call if the header is

present and not complete the call if the header is not present (Figure 4, 412, 414, 416; page 11, lines 23-27).

Claim 40 recites a computer-readable medium having computer executable instructions for performing a method for placing a call between a first client and a second client (page 11, line 27 - page 12, line 2), the computer-readable medium comprising instructions for receiving a SIP call request message (Figure 4, 400; page 9, lines 4-8); instructions for checking the SIP call request message for a server identifier in a security header appended to the SIP call request message, the server identifier identifying a server from which the SIP call request message was received (Figure 4, 410; page 11, lines 20-24); and instructions for completing the call based on existence of the server identifier in the security header (Figure 4, 412, 414; page 11, lines 22-27).

Claim 41 recites that the call is completed if the security header is present (Figure 4, 412, 414; page 11, lines 22-27).

Claim 43 recites a system (Figure 1, 10) for placing a call between a first client and a second client, the system comprising a SIP server (Figure 1, 102) configured to: challenge a device that originated the call by requesting the device to authenticate itself, the device performing a first authentication process based on a username and password associated with the device to generate a first authentication result as a result of authenticating itself (page 9, lines 10-13), process a SIP call request message received from the first client to determine an authentic originating client by performing a second authentication process based on the username and the password associated with the device to generate a second authentication result and comparing the second authentication result with the first authentication result (page 9, lines 14-18), obtain a client billing tag that identifies the authentic originating client as a party responsible for paying



for the call (page 9, lines 18-21); and a network gateway (Figure 1, 106) coupled to the SIP server, the network gateway being configured to provide at least one of the first client or the second client conditional access to a public switched telephone network (page 9, lines 24-26).

Claim 45 recites that the SIP server is configured to insert the client billing tag into the SIP call request message and transmit the call request message to the network gateway (page 9, lines 21-23).

Claim 50 recites that the SIP server is configured to add a header to the SIP call request message (page 11, lines 20-22).

Claim 51 recites that the network gateway is configured to complete the call if the header is detected and not complete the call if the header is not detected (page 11, lines 23-27).

Claim 61 recites a server system (Figure 1, 102) for placing a call between a first client and a second client, the system comprising a database (Figure 1, 102) configured to store at least one client billing tag (page 4, lines 21-24); and a processor (Figure 1, 102; page 4, lines 21-24) coupled to the database, the processor being programmed to: challenge a device that originated the call by requesting the device to authenticate itself, the device performing a first authentication process based on a username and password associated with the device to generate a first authentication result as a result of authenticating itself (page 9, lines 10-13), process a SIP call request message to identify an authentic originating client by performing a second authentication process based on the username and the password associated with the device to generate a second authentication result and comparing the second authentication result with the first authentication result (page 9, lines 14-18), search the database to find the client billing tag that identifies the authentic originating client as a party responsible for paying for the call (page

9, lines 18-21), allow the call to be completed if the client billing tag is obtained (page 9, lines 21-26), and not allow the call to be completed if the client billing tag cannot be obtained (page 9, lines 28-31).

Claim 64 recites that the processor is further programmed to add a header to the SIP call request message, the header including a server identifier identifying the server system that forwards the call request message (page 11, lines 20-22); and transmit the SIP call request message and header to a network gateway (page 11, lines 22-23).

Claim 66 recites a network gateway system (Figure 1, 106) for placing a call between a first client and a second client, the system comprising a communications interface (Figure 1, 106) for establishing a call with a circuit switched network (page 6, line 32 - page 7, line 1); and a processor (Figure 1, 106) coupled to the communications interface, the processor being programmed to: receive a SIP call request message (page 11, lines 20-24); check the SIP call request message for existence of a security header appended to the SIP call request message, the security header including a server identifier identifying a server that forwarded the SIP call request message (page 11, lines 20-24); and complete the call based on the existence of the security header including the server identifier (page 11, lines 24-27).

Claim 75 recites that authenticating the call request message includes receiving the username and the first authentication result from the device (page 9, lines 10-13), determining a password that corresponds to the username (page 9, lines 14-15), performing a hash function based on the username and password (page 9, lines 15-17), and determining whether a result of the hash function matches the first authentication result (page 9, lines 17-18).

Claim 76 recites that authenticating the call request message includes receiving a user

name and the authentication result from the device (page 9, lines 10-13), determining a password that corresponds to the user name (page 9, lines 14-15), performing a hash function based on the user name and password (page 9, lines 15-17), and determining whether a result of the hash function matches the authentication result (page 9, lines 17-18).

Claim 77 recites that authenticating the SIP call request message includes receiving a user name and the authentication result from the device (page 9, lines 10-13), determining a password that corresponds to the user name (page 9, lines 14-15), performing a hash function based on the user name and password (page 9, lines 15-17), and determining whether a result of the hash function matches the authentication result (page 9, lines 17-18).

Claim 78 recites that authenticating the SIP call request message includes receiving a user name and the authentication result from the device (page 9, lines 10-13), determining a password that corresponds to the user name (page 9, lines 14-15), performing a hash function based on the user name and password (page 9, lines 15-17), and determining whether a result of the hash function matches the authentication result (page 9, lines 17-18).

Claim 79 recites that the SIP server is further configured to receive the username and the first authentication result from the device (page 9, lines 10-13), determine a password that corresponds to the username (page 9, lines 14-15), perform a hash function based on the username and password (page 9, lines 15-17), and determine whether a result of the hash function matches the first authentication result (page 9, lines 17-18).

Claim 80 recites that the processor is further programmed to receive the username and the first authentication result from the device (page 9, lines 10-13), determine a password that corresponds to the username (page 9, lines 14-15), perform a hash function based on the

username and password (page 9, lines 15-17), and determine whether a result of the hash function matches the first authentication result (page 9, lines 17-18).

VI. GROUND OF REJECTION TO BE REVIEWED ON APPEAL

A. Claims 1-14, 27-29, 31, 32, 34-37, 61-63, 75-78, and 80 stand rejected under 35 U.S.C. § 103(a) as unpatentable over D'Amico et al. in view of Riggins and Faccinn et al.

B. Claims 15-17 and 64 stand rejected under 35 U.S.C. § 103(a) as unpatentable over D'Amico et al. in view of Riggins and Faccinn et al. and further in view of Innes.

C. Claims 30 and 33 stand rejected under 35 U.S.C. § 103(a) as unpatentable over D'Amico et al. in view of Riggins and Faccinn et al. and further in view of Fletcher et al.

D. Claims 38-42 and 66-68 stand under 35 U.S.C. § 103(a) as unpatentable over D'Amico et al. in view of Innes and Faccinn et al.

E. Claims 43, 44, 47-49, and 79 stand rejected under 35 U.S.C. § 103(a) as unpatentable over D'Amico et al. in view of Riggins and Hluchyj et al.

F. Claims 45 and 46 stand rejected under 35 U.S.C. § 103(a) as unpatentable over D'Amico et al. in view of Riggins and Hluchyj et al. and further in view of Faccinn et al.

G. Claims 50 and 51 stand rejected under 35 U.S.C. § 103(a) as unpatentable over D'Amico et al. in view of Riggins and Hluchyj et al. and further in view of Innes.

VII. ARGUMENT**A. The Rejection of Claims 1-14, 27-29, 31, 32, 34-37, 61-63, 75-78, and 80 Under 35 U.S.C. § 103(a) Based on D'Amico et al., Riggins, and Faccinn et al. Should be Reversed.**

The initial burden of establishing a prima facie basis to deny patentability to a claimed invention is always upon the Examiner. In re Oetiker, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). In rejecting a claim under 35 U.S.C. § 103, the Examiner must provide a factual basis to support the conclusion of obviousness. In re Warner, 379 F.2d 1011, 154 USPQ 173 (CCPA 1967). Based upon the objective evidence of record, the Examiner is required to make the factual inquiries mandated by Graham v. John Deere Co., 86 S.Ct. 684, 383 U.S. 1, 148 USPQ 459 (1966). KSR International Co. v. Teleflex Inc., 550 U.S. \_\_\_\_\_, 127 S. Ct. 1727 (2007). The Examiner is also required to explain how and why one having ordinary skill in the art would have been led to modify an applied reference and/or combine applied references to arrive at the claimed invention. Uniroyal, Inc. v. Rudkin-Wiley Corp., 837 F.2d 1044, 5 USPQ2d 1434 (Fed. Cir. 1988).

## 1. Claims 1-4.

Independent claim 1 is directed to a method for placing a call between a first client and a second client. The method comprises receiving a SIP call request message; challenging a device that originated the SIP call request message to authenticate itself, the device performing a first authentication process based on a username and a password associated with the device to generate a first authentication result as a result of authenticating itself; authenticating the SIP call request message by performing a second authentication process based on the username and the password associated with the device to generate a second authentication result and comparing

the second authentication result to the first authentication result; identifying an authentic originating client when the second authentication result matches the first authentication result; searching a database to determine whether the database includes a client billing tag that identifies the authentic originating client as a party responsible for paying for the call; authorizing the call to be completed if the client billing tag is included in the database; and not authorizing the call to be completed if the client billing tag is not included in the database.

D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, do not disclose or suggest the combination of features recited in claim 1. For example, D'Amico et al., Riggins, and Faccinn et al. do not disclose or suggest searching a database to determine whether the database includes a client billing tag that identifies the authentic originating client as a party responsible for paying for the call, as recited in claim 1.

The Examiner alleged that D'Amico et al. discloses searching a database to find a client billing tag corresponding to the authentic originating client and cited column 27, line 57 - column 29, line 45, of D'Amico et al. for support. Office Action, page 9. Appellants note that the Examiner does not address the remaining portion of the claimed feature that states "as a party responsible for paying for the call" (emphasis added). Nevertheless, Appellants submit that D'Amico et al. does not disclose or suggest searching a database to determine whether the database includes a client billing tag that identifies the authentic originating client as a party responsible for paying for the call, as recited in claim 1.

D'Amico et al. is directed to the problem of undesirable calls to cellular phone subscribers who are outside the range of their home base station and, therefore, subject to pay for all incoming calls. Column 8, lines 44-52. D'Amico et al. discloses a caller pays feature,

whereby a calling party is prompted to indicate whether they wish to pay cellular air time charges necessary to complete a call to the cellular phone subscriber. Column 8, lines 53-67.

At column 27, line 57 - column 29, line 45, D'Amico et al. discloses that it is determined whether automatic number identification (ANI) can be determined for a received call. Column 27, lines 57-61. If the ANI can be determined, it is determined whether the ANI corresponds to an entry in a VIP table. Column 28, lines 1-7. If the ANI corresponds to an entry in the VIP table, then the call is established and the called party is charged for the cellular air time charges. Column 28, lines 1-7. If the ANI does not correspond to an entry in the VIP table, then a message is played for the calling party indicating that, to complete the call, the calling party must pay for the cellular air time charges. Column 28, lines 30-34. Upon refusal to accept the charges, the call is routed to voicemail. Column 28, lines 40-44. Upon agreement to accept the charges, a record is created based on the ANI. Column 28, lines 48-60. If the ANI cannot be determined, a message is played for the calling party requesting a PIN (the called party may provide PINs to calling parties who are not required to pay the cellular air time charges). Column 28, line 61 - column 29, line 4. If the calling party provides a proper PIN, the call is established and the called party is charged for the cellular air time charges. Column 29, lines 5-10. As an alternative to the PIN or if the calling party provides an incorrect PIN, a message can be presented to the calling party requesting entry of a credit card number to which to bill the cellular air time charges for the call. Column 29, lines 14-18.

Nowhere in this section, or elsewhere, does D'Amico et al. disclose or remotely suggest searching a database to determine whether the database includes a client billing tag that identifies the authentic originating client (which the Examiner equated to the calling party) as a

party responsible for paying for the call, as recited in claim 1.

The Examiner alleged that the numbers stored in the VIP table of D'Amico et al. are equivalent to client billing tags. Office Action, page 10. The Examiner admitted that D'Amico et al. discloses that if the calling party is on the VIP table, then the called party will pay. Office Action, page 10. Thus, the Examiner admits that the VIP table identifies when the called party will pay for calls. The VIP table does not include a "client billing tag that identifies the authentic originating client as a party responsible for paying for the call," as recited in claim 1. The Examiner explicitly identifies the calling party in D'Amico et al. as the authentic originating client. Office Action, page 9. As the Examiner clearly recognized, D'Amico et al. does not disclose or suggest that the VIP table includes a client billing tag that identifies the calling party as the party responsible for paying for the call. In fact, as the Examiner admitted, D'Amico et al. discloses that the VIP table includes information that identifies calling parties, but when the VIP table identifies a calling party, it is the called party who is responsible for paying for the call. Office Action, page 10. Thus, D'Amico et al. does not disclose or suggest searching a database to determine whether the database includes a client billing tag that identifies the authentic originating client as a party responsible for paying for the call, as recited in claim 1.

Claim 1 also recites receiving a SIP call request message. The Examiner admitted that D'Amico et al. and Riggins do not disclose or suggest this feature. Office Action, page 12. The Examiner relied upon Faccinn et al. as allegedly disclosing a billing method and system that uses the SIP protocol and receives a SIP call request message. Office Action, page 12. The Examiner alleged that it would have been obvious to one of ordinary skill to use the SIP protocol with call request messages, as allegedly disclosed by Faccinn et al., in D'Amico et al. and Riggins for the



purpose of allowing joint billing for GPRS services and IP telephony services. Office Action, page 12. Appellants submit that the Examiner's motivation statement falls short of establishing a prima facie case of obviousness with regard to claim 1.

The Examiner is required to make the factual inquiries mandated by Graham v. John Deere Co. In this regard, the Examiner provided a motivation to combine Faccinn et al. and D'Amico et al. Appellants submit that one of ordinary skill would not have been motivated to combine Faccinn et al. and D'Amico et al. in the manner suggested by the Examiner.

D'Amico et al. discloses a caller pays feature for use in a cellular communication network. See, e.g., column 8, line 53 - column 9, line 10. D'Amico et al. has absolutely nothing to do with IP-based telephone calls. Therefore, contrary to the Examiner's allegation, combining the disclosure of using the SIP protocol with call request messages, as allegedly disclosed by Faccinn et al., into the cellular communications system of D'Amico et al. would not facilitate billing of IP-based telephone calls in the D'Amico et al. cellular communications system. In fact, the Examiner's motivation statement would only make sense if D'Amico et al. discloses an IP-based telephony system, which D'Amico et al. does not. The Examiner also did not provide a reasonable explanation as to why one of ordinary skill in the art at the time of Appellants' invention would have sought to convert D'Amico et al.'s cellular communication system into an IP-based telephony system. Accordingly, Appellants submit that the Examiner's motivation statement falls short of establishing a prima facie case of obviousness.

Further, D'Amico et al. and Riggins do not even mention SIP. The Examiner has not provided any reasonable explanation of how to implement the SIP protocol in the D'Amico et al. system, why simply implementing the SIP protocol in the D'Amico et al. system would permit

the alleged benefit of joint billing for GPRS services and IP telephony services, or why one of ordinary skill in the art at the time of Appellants' invention would seek to obtain the alleged benefit of joint billing for GPRS services and IP telephony services in the D'Amico et al. system. Therefore, the Examiner's allegation falls short of establishing a prima facie case of obviousness with regard to claim 1.

The Examiner attempted to clarify the motivation statement by asserting that D'Amico et al. is being relied upon as disclosing a regular billing method, while Faccinn et al. is being relied upon as disclosing the billing of IP type calls. Office Action, page 5. The Examiner then concluded that the disclosure of Faccinn et al. would permit the billing of IP type calls in the D'Amico et al. system. Office Action, page 5. Appellants submit that the Examiner's allegations lack merit. D'Amico et al. is directed to a cellular communication network that implements a calling party pays feature that permits a subscriber to pay for cellular air time charges for selected callers and require non-selected callers to pay for the cellular air time charges if those non-selected callers desire to complete a call to the subscriber. See, e.g., Abstract. Contrary to the Examiner's allegations, one of ordinary skill in the art at the time of Appellants' invention would not have been motivated to convert, or be capable of converting, the D'Amico et al. system into an IP-based communication system even if this person of ordinary skill was aware of the Faccinn et al. disclosure. The Examiner has provided absolutely no evidence to the contrary, other than unfounded allegations that are solely based on impermissible hindsight.

Claim 1 further recites challenging a device that originated the SIP call request message to authenticate itself, the device performing a first authentication process based on a username and a password associated with the device to generate a first authentication result as a result of

authenticating itself; and authenticating the SIP call request message by performing a second authentication process based on the username and the password associated with the device to generate a second authentication result and comparing the second authentication result to the first authentication result identifying an authentic originating client when the second authentication result matches the first authentication result.

The Examiner admitted that D'Amico et al. does not disclose or suggest these features. Office Action, pages 10-11. The Examiner alleged that Riggins discloses these features, and cited the Abstract, column 10, line 62 - column 11, line 13, of Riggins for support. Office Action, pages 11-12. Appellants submit that the disclosure of Riggins provides no support for the Examiner's allegation.

In the Abstract, Riggins discloses:

The system includes a server coupled via a computer network to a client. Upon receiving a request for access, the server sends an authentication applet to the client. The authentication applet includes a user identification (ID) module for obtaining a user ID and a password module for obtaining a client password. The authentication applet also includes a response generator coupled to the password module for using the client password as a variable in an algorithm to compute a client response. The authentication applet further includes a communications module coupled to the response generator and to the user ID module for sending the client response and the user ID back to the server for verifying the response and authenticating the user. The client uses an applet engine to execute the applet. The server uses the user ID to retrieve user information, and uses the user information as a variable in an algorithm to generate a verification response. If the verification response is the same as the client response, then the identity of the user is verified and access may be granted.

In this section, Riggins discloses a response generator that computes a client response using the client password. Riggins does not disclose or suggest that the response generator computes the client response using the client password and the user identification (ID), as would be required by claim 1. Therefore, Riggins does not disclose or suggest challenging a device that originated the SIP call request message to authenticate itself, the device performing a first authentication

process based on a username and a password associated with the device to generate a first authentication result as a result of authenticating itself; and authenticating the SIP call request message by performing a second authentication process based on the username and the password associated with the device to generate a second authentication result and comparing the second authentication result to the first authentication result identifying an authentic originating client when the second authentication result matches the first authentication result, as recited in claim 1.

At column 10, line 62 - column 11, line 13, Riggins discloses that an applet engine 940 on a remote terminal executes an applet 955 that, in coordination with user input, computes and forwards a proper response to the challenge to a global server 920 that verifies the response. Riggins discloses that the proper response is computed by using a user password, the challenge, and possibly a modification factor, as variables in a one-way hash. Column 13, line 59 - column 14, line 7. Nowhere in this section, or elsewhere, does Riggins disclose or suggest that the response is computed using a username. Thus, Riggins does not disclose or suggest challenging a device that originated the SIP call request message to authenticate itself, the device performing a first authentication process based on a username and a password associated with the device to generate a first authentication result as a result of authenticating itself; and authenticating the SIP call request message by performing a second authentication process based on the username and the password associated with the device to generate a second authentication result and comparing the second authentication result to the first authentication result identifying an authentic originating client when the second authentication result matches the first authentication result, as recited in claim 1.

The Examiner alleged that Riggins discloses that the global server uses the user's password, a hash of the user's password, or the user's public keys to verify the identify of the user. Office Action, page 4. The Examiner alleged that Riggins discloses that using the hash of the user's password is an example of the type of information that can be used. Office Action, page 4. Appellants agree that Riggins discloses that the global server 920 can use the hash of the user's password to verify the response, or the global server 920 can use the user's password or the user's public key to verify the response. Column 11, lines 5-8. Contrary to the Examiner's allegation, Riggins does not contemplate any open-ended set of information, but instead, clearly discloses using: (1) the user's password, (2) a hash of the user's password, or (3) the user's public key to verify the response. Column 11, lines 5-8.

The Examiner also alleged that one of ordinary skill would have found it obvious to use a hash of the username and password because this is an allegedly well-known idea. Office Action, pages 4-5. Appellants submit that the Examiner appears to be making an obviousness statement but did not provide any reason why one of ordinary skill in the art at the time of Appellants' invention would have changed the operation of the Riggins system to include generating a response based on a username and password. Thus, the Examiner did not establish a prima facie case of obviousness with regard to claim 1. Further, the Examiner's unfounded statement that hashing a username and password is allegedly well known does not appear to be supported by the references of record.

The Examiner further alleged that it would have been obvious to one of ordinary skill to include the teaching of Riggins in D'Amico et al. for the "purpose of securing access to services in a computer network." Office Action, page 12. Appellants submit that the Examiner's

motivation statement falls short of establishing a prima facie case of obviousness with regard to claim 1.

The Examiner is required to make the factual inquiries mandated by Graham v. John Deere Co. In this regard, the Examiner provided a motivation to combine Riggins and D'Amico et al. Appellants submit that one of ordinary skill would not have been motivated to combine Riggins and D'Amico et al. in the manner suggested by the Examiner.

D'Amico et al. is directed to the field of cellular communication. Column 8, lines 14-52. Riggins is directed to the non-analogous field of computer networks. Column 1, lines 25-27. Further, D'Amico et al. discloses a caller pays feature for use in a cellular communication network. Column 8, line 53 - column 9, line 10. D'Amico et al. has absolutely nothing to do with accessing computer networks and definitely has nothing to do with secure access to services in a computer network. Therefore, contrary to the Examiner's allegation, combining the disclosure of challenging and authenticating a device, as allegedly disclosed by Riggins, into the cellular communications system of D'Amico et al. would not transform the D'Amico et al. cellular communications system into one with secure access to services in a computer network. Accordingly, Appellants submit that the Examiner's motivation statement falls short of establishing a prima facie case of obviousness.

Further, the Examiner's motivation statement falls short of establishing why one of ordinary skill in the art at the time of Appellants' invention would have been motivated to incorporate Riggins' alleged disclosure of secure access to services in a computer network into the cellular communications system of D'Amico et al. D'Amico et al. discloses using ANI or a PIN to identify a calling party. The Examiner provided absolutely no reason why one of

ordinary skill in the art at the time of Appellants' invention would have been motivated to not use ANI or a PIN to identify the calling party, but instead to use the authentication applet disclosed by Riggins. Appellants submit that the authentication technique using the authentication applet disclosed by Riggins would, at the very least, require a major change to the cellular communications system of D'Amico et al. and, thus, there would not be a reasonable expectation of successfully combining the features of Riggins and D'Amico et al.

The Examiner further alleged that "[s]ince the combination was for a method of security, and not the specifics of the network, the motivation is clearly relevant." Office Action, page 4. Appellants submit that the Examiner's allegation lacks merit. The Examiner's motivation statement explicitly recites that the motivation to incorporate the alleged disclosure of Riggins into the D'Amico et al. system is for "securing access to services in a computer network." Office Action, page 12. The Examiner has not only failed to establish how incorporating challenging and authenticating, as allegedly disclosed by Riggins, into the D'Amico et al. system would somehow transform the D'Amico et al. system into a computer system where secure access to services would be beneficial, but has provided absolutely no evidence that it would have even been possible to incorporate the authentication technique using the authentication applet disclosed by Riggins into the D'Amico et al. system. Thus, the Examiner's motivation statement falls short of establishing a prima facie case of obviousness with regard to claim 1.

For at least these reasons, it is respectfully submitted that claim 1 is patentable over D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 1 is respectfully requested.

Claims 2-4 depend from claim 1. Claims 2-4 are, therefore, also patentable over D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103 for at least the reasons given with regard to claim 1.

2. Claims 5-10.

Dependent claim 5 recites evaluating a profile of the second client, the profile including information corresponding to at least one calling feature activated by the second client.

Initially, claim 5 depends from claim 1. Claim 5 is, therefore, patentable over D'Amico et al., Riggins, and Faccinn et al. for at least the reasons given with regard to claim 1.

Further, D'Amico et al., Riggins, and Faccinn et al. do not disclose or suggest evaluating a profile of the second client, the profile including information corresponding to at least one calling feature activated by the second client, as recited in claim 5. The Examiner did not address this feature when addressing claim 5. With regard to claim 31, however, the Examiner alleged that D'Amico et al. discloses this feature and cited column 28, lines 1-15, of D'Amico et al. for support. Office Action, page 6. Appellants submit that D'Amico et al. provides absolutely no support for the Examiner's allegation.

D'Amico et al. discloses that it is determined whether automatic number identification (ANI) can be determined for a received call. Column 27, lines 57-61. If the ANI can be determined, it is determined whether the ANI corresponds to an entry in a VIP table. Column 28, lines 1-7. If the ANI corresponds to an entry in the VIP table, then the call is established and the called party is charged for the cellular air time charges. Column 28, lines 1-7. If the ANI does not correspond to an entry in the VIP table, then a message is played for the calling party indicating that, to complete the call, the calling party must pay for the cellular air time charges.



Column 28, lines 30-34. The Examiner alleged that the VIP table is equivalent to a profile of a second client. Office Action, page 6. Appellants disagree.

D'Amico et al. discloses that the VIP table includes a list of ANI's corresponding to calling parties identified by a subscriber. Column 28, lines 1-5. Clearly, an ANI is different from a calling feature as the term is well understood in the art. Appellants' specification provides examples of calling features that are consistent with the well understood meaning of "calling features." Page 10, lines 10-17. These examples include unconditional call forwarding, conditional call forwarding, find-me, call blocking, call screening, etc. An ANI is not a calling feature. Thus, the Examiner's allegation lacks merit.

For at least these reasons, it is respectfully submitted that claim 5 is patentable over D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 5 is respectfully requested.

Claims 6-10 depend from claim 5. Claims 6-10 are, therefore, also patentable over D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103 for at least the reasons given with regard to claim 5.

3. Claims 11-14.

Dependent claim 11 recites evaluating at least one calling feature activated by the second client; determining the authentic originating client based on the at least one calling feature; retrieving the client billing tag corresponding to the authentic originating client; and inserting the client billing tag corresponding to the authentic originating client into the SIP call request message.

Initially, claim 11 depends from claim 1. Claim 11 is, therefore, patentable over D'Amico et al., Riggins, and Faccinn et al. for at least the reasons given with regard to claim 1.

Further, D'Amico et al., Riggins, and Faccinn et al. do not disclose or suggest, for example, determining the authentic originating client based on at least one calling feature activated by the second client, as recited in claim 11. The Examiner did not address this feature of claim 11. With regard to claim 31, however, the Examiner alleged that D'Amico et al. discloses this feature and cited column 28, lines 1-15, of D'Amico et al. for support. Office Action, page 6. Appellants submit that D'Amico et al. provides absolutely no support for the Examiner's allegation for at least reasons similar to the reasons given with regard to claim 5.

For at least these reasons, it is respectfully submitted that claim 11 is patentable over D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 11 is respectfully requested.

Claims 12-14 depend from claim 11. Claims 12-14 are, therefore, also patentable over D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103 for at least the reasons given with regard to claim 11.

4. Claim 27.

Independent claim 27 is directed to a computer-readable medium having computer executable instructions for performing a method for placing a call between a first client and a second client. The computer-readable medium comprises instructions for receiving a call request message; instructions for challenging a device that originated the call request message to authenticate itself, the device generating an authentication result as a result of authenticating

itself; instructions for authenticating the call request message based on the authentication result; to identify an authentic originating client; instructions for searching a database to identify whether the database includes a client billing tag that identifies the authentic originating client as a party responsible for paying for the call; instructions for not authorizing the call to be completed if the database does not include the client billing tag; instructions for authorizing the call to be completed if the database includes the client billing tag; instructions for inserting the client billing tag into the call request message when the call is authorized to be completed; and instructions for forwarding the call request message with the inserted client billing tag when the call is authorized to be completed.

Initially, Appellants note that the Examiner rejected claim 27 based on a combination of D'Amico et al., Riggins, and Faccinn et al. The Examiner did not rely upon Faccinn et al. for disclosing any feature of claim 27. Therefore, the Examiner's rejection based on Faccinn et al. is improper. If the Examiner maintains a rejection of claim 27 based on Faccinn et al., Appellants request that the Examiner identify the reasons that Faccinn et al. is being used in the rejection.

Nevertheless, D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, do not disclose or suggest the combination of features recited in claim 27. For example, D'Amico et al., Riggins, and Faccinn et al. do not disclose or suggest instructions for searching a database to identify whether the database includes a client billing tag that identifies the authentic originating client as a party responsible for paying for the call, as recited in claim 27.

The Examiner alleged that D'Amico et al. discloses searching a database to identify whether the database includes a client billing tag that identifies the authentic originating client as

a party responsible for paying for the call, and cited column 27, line 57 - column 29, line 45, of D'Amico et al. for support. Office Action, page 13. Appellants submit that D'Amico et al. provides absolutely no support for the Examiner's allegation for at least reasons similar to the reasons given with regard to claim 1.

Claim 27 also recites instructions for challenging a device that originated the call request message to authenticate itself, the device generating an authentication result as a result of authenticating itself; and instructions for authenticating the call request message based on the authentication result, to identify an authentic originating client.

The Examiner admitted that D'Amico et al. does not disclose or suggest these features. Office Action, page 14. The Examiner alleged that Riggins discloses these features. Office Action, page 14. The Examiner alleged that it would have been obvious to one of ordinary skill to include the teaching of Riggins in D'Amico et al. for the "purpose of securing access to services in a computer network." Office Action, page 14. Appellants submit that the Examiner's motivation statement falls short of establishing a prima facie case of obviousness with regard to claim 27 for at least reasons similar to reasons given with regard to claim 1.

For at least these reasons, it is respectfully submitted that claim 27 is patentable over D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 27 is respectfully requested.

5. Claims 28 and 29.

Independent claim 28 is directed to a computer-readable medium having computer executable instructions for performing a method for placing a call between a first client and a

second client. The computer-readable medium comprises instructions for receiving, by a SIP server, a SIP call request message; instructions for challenging, by the SIP server, a device that originated the SIP call request message to authenticate itself, the device generating an authentication result as a result of authenticating itself; instructions for authenticating, by the SIP server, the SIP call request message based on the authentication result to identify an authentic originating client; instructions for searching, by the SIP server, a database to find a client billing tag that identifies the authentic originating client as a party responsible for paying for the call; instructions for inserting, by the SIP server, the client billing tag into the SIP call request message; and instructions for transmitting, by the SIP server, the SIP call request message to a gateway.

D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, do not disclose or suggest the combination of features recited in claim 28. For example, D'Amico et al., Riggins, and Faccinn et al. do not disclose or suggest instructions for searching, by a SIP server, a database to find a client billing tag that identifies the authentic originating client as a party responsible for paying for the call, as recited in claim 28.

The Examiner alleged that D'Amico et al. discloses searching a database to identify whether the database includes a client billing tag that identifies the authentic originating client as a party responsible for paying for the call, and cited column 27, line 57 - column 29, line 45, of D'Amico et al. for support. Office Action, page 13. Appellants submit that D'Amico et al. provides absolutely no support for the Examiner's allegation for at least reasons similar to the reasons given with regard to claim 1.

Further, D'Amico et al. does not disclose or suggest a SIP server that receives a SIP call

request message, challenges a device that originated the SIP call request message to authenticate itself, authenticates the SIP call request message, and searches a database to find a client billing tag, as recited in claim 1. In fact, D'Amico et al. does not even mention SIP. Therefore, D'Amico et al. cannot disclose or suggest instructions for searching, by a SIP server, a database to find a client billing tag that identifies the authentic originating client as a party responsible for paying for the call, as recited in claim 28.

Claim 28 also recites instructions for receiving, by a SIP server, a SIP call request message. The Examiner relied upon Faccinn et al. as allegedly disclosing a billing method and system that uses the SIP protocol and receives a SIP call request message. Office Action, page 15. The Examiner alleged that it would have been obvious to one of ordinary skill to use the SIP protocol with call request messages, as allegedly disclosed by Faccinn et al., in D'Amico et al. and Riggins for the purpose of billing IP-based telephone calls. Office Action, page 15. Appellants submit that the Examiner's motivation statement falls short of establishing a prima facie case of obviousness with regard to claim 28, for at least reasons similar to the reasons given with regard to claim 1.

Further, the Examiner did not even address the feature of a "SIP server." For at least these additional reasons, the Examiner has not established a prima facie case of obviousness with regard to claim 1.

Claim 28 further recites instructions for challenging, by a SIP server, a device that originated the SIP call request message to authenticate itself, the device generating an authentication result as a result of authenticating itself; and instructions for authenticating, by the

SIP server, the SIP call request message based on the authentication result to identify an authentic originating client.

The Examiner admitted that D'Amico et al. does not disclose or suggest these features. Office Action, page 14. The Examiner alleged that Riggins discloses these features. Office Action, page 14. The Examiner alleged that it would have been obvious to one of ordinary skill to include the teaching of Riggins in D'Amico et al. for the "purpose of securing access to services in a computer network." Office Action, page 14. Appellants submit that the Examiner's motivation statement falls short of establishing a prima facie case of obviousness with regard to claim 28 for at least reasons similar to reasons given with regard to claim 1.

For at least these reasons, it is respectfully submitted that claim 28 is patentable over D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 28 is respectfully requested.

Claim 29 depends from claim 28. Claim 29 is, therefore, also patentable over D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103 for at least the reasons given with regard to claim 28.

6. Claims 31, 32, and 34-37.

Independent claim 31 is directed to a method for placing a call between a first client and a second client. The method comprises receiving a SIP call request message from the first client; challenging a device that originated the SIP call request message to authenticate itself, the device generating an authentication result as a result of authenticating itself; evaluating at least one calling feature in a profile of the second client; determining an authentic originating

client based on the at least one calling feature and the authentication result; retrieving a client billing tag that identifies the authentic originating client as a party responsible for paying for the call; and inserting the client billing tag into the SIP call request message.

D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, do not disclose or suggest the combination of features recited in claim 31. For example, D'Amico et al., Riggins, and Faccinn et al. do not disclose or suggest determining an authentic originating client based on at least one calling feature in a profile of the second client and the authentication result.

The Examiner alleged that D'Amico et al. discloses this feature and cited column 28, lines 1-15, of D'Amico et al. for support. Office Action, page 6. Appellants submit that D'Amico et al. provides absolutely no support for the Examiner's allegation.

D'Amico et al. discloses that it is determined whether automatic number identification (ANI) can be determined for a received call. Column 27, lines 57-61. If the ANI can be determined, it is determined whether the ANI corresponds to an entry in a VIP table. Column 28, lines 1-7. If the ANI corresponds to an entry in the VIP table, then the call is established and the called party is charged for the cellular air time charges. Column 28, lines 1-7. If the ANI does not correspond to an entry in the VIP table, then a message is played for the calling party indicating that, to complete the call, the calling party must pay for the cellular air time charges. Column 28, lines 30-34. The Examiner alleged that the VIP table is equivalent to a profile of a second client. Office Action, page 6. Appellants disagree.

D'Amico et al. discloses that the VIP table includes a list of ANI's corresponding to calling parties identified by a subscriber. Column 28, lines 1-5. Clearly, an ANI is different



from a calling feature as the term is well understood in the art. Appellants' specification provides examples of calling features that are consistent with the well understood meaning of "calling features." Page 10, lines 10-17. These examples include unconditional call forwarding, conditional call forwarding, find-me, call blocking, call screening, etc. An ANI is not a calling feature. Thus, the Examiner's allegation lacks merit.

D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, also do not disclose or suggest retrieving a client billing tag that identifies the authentic originating client as a party responsible for paying for the call, as recited in claim 31.

The Examiner alleged that D'Amico et al. discloses searching a database to identify whether the database includes a client billing tag that identifies the authentic originating client as a party responsible for paying for the call, and cited column 27, line 57 - column 29, line 45, of D'Amico et al. for support. Office Action, page 13. Appellants submit that D'Amico et al. does not disclose or suggest retrieving a client billing tag that identifies the authentic originating client as a party responsible for paying for the call, as recited in claim 31, for at least reasons similar to the reasons given with regard to claim 1.

Claim 31 also recites receiving a SIP call request message from the first client. The Examiner relied upon Faccinn et al. as allegedly disclosing a billing method and system that uses the SIP protocol and receives a SIP call request message. Office Action, page 15. The Examiner alleged that it would have been obvious to one of ordinary skill to use the SIP protocol with call request messages, as allegedly disclosed by Faccinn et al., in D'Amico et al. and Riggins for the purpose of billing IP-based telephone calls. Office Action, page 15. Appellants submit that the Examiner's motivation statement falls short of establishing a prima facie case of obviousness

with regard to claim 31, for at least reasons similar to the reasons given with regard to claim 1.

Claim 31 further recites challenging a device that originated the SIP call request message to authenticate itself, the device generating an authentication result as a result of authenticating itself.

The Examiner admitted that D'Amico et al. does not disclose or suggest these features. Office Action, page 14. The Examiner alleged that Riggins discloses these features. Office Action, page 14. The Examiner alleged that it would have been obvious to one of ordinary skill to include the teaching of Riggins in D'Amico et al. for the "purpose of securing access to services in a computer network." Office Action, page 14. Appellants submit that the Examiner's motivation statement falls short of establishing a prima facie case of obviousness with regard to claim 31 for at least reasons similar to reasons given with regard to claim 1.

For at least these reasons, it is respectfully submitted that claim 31 is patentable over D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 31 is respectfully requested.

Claims 32 and 34-37 depend from claim 31. Claims 32 and 34-37 are, therefore, also patentable over D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103 for at least the reasons given with regard to claim 31.

7. Claims 61-63.

Independent claim 61 is directed to a server system for placing a call between a first client and a second client. The system comprises a database configured to store at least one

client billing tag; and a processor coupled to the database, the processor being programmed to: challenge a device that originated the call by requesting the device to authenticate itself, the device performing a first authentication process based on a username and password associated with the device to generate a first authentication result as a result of authenticating itself, process a SIP call request message to identify an authentic originating client by performing a second authentication process based on the username and the password associated with the device to generate a second authentication result and comparing the second authentication result with the first authentication result, search the database to find the client billing tag that identifies the authentic originating client as a party responsible for paying for the call, allow the call to be completed if the client billing tag is obtained, and not allow the call to be completed if the client billing tag cannot be obtained.

D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, do not disclose or suggest the combination of features recited in claim 61. For example, D'Amico et al., Riggins, and Faccinn et al. do not disclose or suggest a processor to search a database to find a client billing tag that identifies the authentic originating client as a party responsible for paying for the call, as recited in claim 61.

The Examiner alleged that D'Amico et al. discloses searching a database to identify whether the database includes a client billing tag corresponding to the authentic originating client, and cited column 27, line 57 - column 29, line 45, of D'Amico et al. for support. Office Action, page 13. Appellants submit that D'Amico et al. provides absolutely no support for the Examiner's allegation for at least reasons similar to the reasons given with regard to claim 1.

Claim 27 also recites a processor to challenge a device that originated the call by requesting the device to authenticate itself, the device performing a first authentication process based on a username and password associated with the device to generate a first authentication result as a result of authenticating itself.

The Examiner admitted that D'Amico et al. does not disclose or suggest these features. Office Action, pages 10-11. The Examiner alleged that Riggins discloses these features, and cited the Abstract, column 10, line 62 - column 11, line 13, of Riggins for support. Office Action, pages 11-12. Appellants submit that the disclosure of Riggins provides no support for the Examiner's allegation for at least reasons similar to the reasons given with regard to claim 1.

The Examiner alleged that it would have been obvious to one of ordinary skill to include the teaching of Riggins in D'Amico et al. for the "purpose of securing access to services in a computer network." Office Action, page 12. Appellants submit that the Examiner's motivation statement falls short of establishing a prima facie case of obviousness with regard to claim 61 for at least reasons similar to reasons given with regard to claim 1.

For at least these reasons, it is respectfully submitted that claim 61 is patentable over D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 61 is respectfully requested.

Claims 62 and 63 depend from claim 61. Claims 62 and 63 are, therefore, also patentable over D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103 for at least the reasons given with regard to claim 61.

## 8. Claim 75.

Dependent claim 75 recites that authenticating the call request message includes receiving the username and the first authentication result from the device, determining a password that corresponds to the username, performing a hash function based on the username and password, and determining whether a result of the hash function matches the first authentication result.

Initially, claim 75 depends from claim 1. Claim 75 is, therefore, patentable over D'Amico et al., Riggins, and Faccinn et al. for at least the reasons given with regard to claim 1.

Further, D'Amico et al., Riggins, and Faccinn et al. do not disclose or suggest, for example, performing a hash function based on the username and password, as recited in claim 75. The Examiner alleged that Riggins discloses this feature, and cited column 10, line 62 - column 11, line 13, of Riggins for support. Office Action, page 4. Appellants submit that the disclosure of Riggins provides no support for the Examiner's allegation.

In column 10, line 62 - column 11, line 13, Riggins discloses that an applet engine 940 on a remote terminal executes an applet 955 that, in coordination with user input, computes and forwards a proper response to the challenge to a global server 920 that verifies the response. Riggins discloses that the response is verified by retrieving a registered hash of the user's password using the user ID, and performs a one-way hash on the challenge, the user's password, and possibly a modification factor. Column 14, lines 16-25. Nowhere in this section, or elsewhere, does Riggins disclose or suggest that a hash is performed on a username. Thus, Riggins does not disclose or suggest performing a hash function based on the username and password, as recited in claim 75.

The Examiner alleged that Riggins discloses that the global server uses the user's password, a hash of the user's password, or the user's public keys to verify the identify of the user. Office Action, page 4. The Examiner alleged that Riggins discloses that using the hash of the user's password is an example of the type of information that can be used. Office Action, page 4. Appellants agree that Riggins discloses that the global server 920 can use the hash of the user's password to verify the response, or the global server 920 can use the user's password or the user's public key to verify the response. Column 11, lines 5-8. Contrary to the Examiner's allegation, Riggins does not contemplate any open-ended set of information, but instead, clearly discloses using: (1) the user's password, (2) a hash of the user's password, or (3) the user's public key to verify the response. Column 11, lines 5-8.

The Examiner also alleged that one of ordinary skill would have found it obvious to use a hash of the username and password because this is an allegedly well-known idea. Office Action, pages 4-5. Appellants submit that the Examiner appears to be making an obviousness statement but did not provide any motivation as to why one of ordinary skill in the art at the time of Appellants' invention would have been motivated to change the operation of the Riggins system to include generating a response based on a username and password. Thus, the Examiner did not establish a prima facie case of obviousness with regard to claim 75. Further, the Examiner's unfounded statement that hashing a username and password is allegedly well known does not appear to be supported by the references of record.

For at least these reasons, it is respectfully submitted that claim 75 is patentable over D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable

combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 75 is respectfully requested.

9. Claim 76.

Dependent claim 76 recites that authenticating the call request message includes receiving a user name and the authentication result from the device, determining a password that corresponds to the user name, performing a hash function based on the user name and password, and determining whether a result of the hash function matches the authentication result.

Initially, claim 76 depends from claim 27. Claim 76 is, therefore, patentable over D'Amico et al., Riggins, and Faccinn et al. for at least the reasons given with regard to claim 27.

Further, D'Amico et al., Riggins, and Faccinn et al. do not disclose or suggest, for example, performing a hash function based on the user name and password, as recited in claim 76. The Examiner alleged that Riggins discloses this feature, and cited column 10, line 62 - column 11, line 13, of Riggins for support. Office Action, page 4. Appellants submit that the disclosure of Riggins provides no support for the Examiner's allegation for at least reasons similar to the reasons given with regard to claim 75.

For at least these reasons, it is respectfully submitted that claim 76 is patentable over D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 76 is respectfully requested.

10. Claim 77.

Dependent claim 77 recites that authenticating the SIP call request message includes receiving a user name and the authentication result from the device, determining a password that

corresponds to the user name, performing a hash function based on the user name and password, and determining whether a result of the hash function matches the authentication result.

Initially, claim 77 depends from claim 28. Claim 77 is, therefore, patentable over D'Amico et al., Riggins, and Faccinn et al. for at least the reasons given with regard to claim 28.

Further, D'Amico et al., Riggins, and Faccinn et al. do not disclose or suggest, for example, performing a hash function based on the user name and password, as recited in claim 75. The Examiner alleged that Riggins discloses this feature, and cited column 10, line 62 - column 11, line 13, of Riggins for support. Office Action, page 4. Appellants submit that the disclosure of Riggins provides no support for the Examiner's allegation for at least reasons similar to the reasons given with regard to claim 75.

For at least these reasons, it is respectfully submitted that claim 77 is patentable over D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 77 is respectfully requested.

11. Claim 78.

Dependent claim 78 recites that authenticating the SIP call request message includes receiving a user name and the authentication result from the device, determining a password that corresponds to the user name, performing a hash function based on the user name and password, and determining whether a result of the hash function matches the authentication result.

Initially, claim 78 depends from claim 31. Claim 78 is, therefore, patentable over D'Amico et al., Riggins, and Faccinn et al. for at least the reasons given with regard to claim 31.



Further, D'Amico et al., Riggins, and Faccinn et al. do not disclose or suggest, for example, performing a hash function based on the user name and password, as recited in claim 78. The Examiner alleged that Riggins discloses this feature, and cited column 10, line 62 - column 11, line 13, of Riggins for support. Office Action, page 4. Appellants submit that the disclosure of Riggins provides no support for the Examiner's allegation for at least reasons similar to the reasons given with regard to claim 75.

For at least these reasons, it is respectfully submitted that claim 78 is patentable over D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 78 is respectfully requested.

12. Claim 80.

Dependent claim 80 recites that the processor is further programmed to receive the username and the first authentication result from the device, determine a password that corresponds to the username, perform a hash function based on the username and password, and determine whether a result of the hash function matches the first authentication result.

Initially, claim 80 depends from claim 61. Claim 80 is, therefore, patentable over D'Amico et al., Riggins, and Faccinn et al. for at least the reasons given with regard to claim 61.

Further, D'Amico et al., Riggins, and Faccinn et al. do not disclose or suggest a processor that is configured to, for example, perform a hash function based on the username and password, as recited in claim 80. The Examiner alleged that Riggins discloses this feature, and cited column 10, line 62 - column 11, line 13, of Riggins for support. Office Action, page 4.

Appellants submit that the disclosure of Riggins provides no support for the Examiner's allegation for at least reasons similar to the reasons given with regard to claim 75.

For at least these reasons, it is respectfully submitted that claim 80 is patentable over D'Amico et al., Riggins, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 80 is respectfully requested.

**B. The Rejection of Claims 15-17 and 64 Under 35 U.S.C. § 103(a) Based on D'Amico et al., Riggins, Faccinn et al., and Innes Should be Reversed.**

1. Claim 15.

Dependent claim 15 recites adding a header to the SIP call request message, the header including a server identifier; and transmitting the SIP call request message to a gateway, the gateway being configured to complete the call if the header is detected and not complete the call if the header is not detected.

Initially, claim 15 depends from claim 1. The disclosure of Innes does not cure the deficiencies in the disclosures of D'Amico et al., Riggins, and Faccinn et al. identified above with regard to claim 1. Claim 15 is, therefore, patentable over D'Amico et al., Riggins, Faccinn et al., and Innes for at least the reasons given with regard to claim 1.

Further, D'Amico et al., Riggins, Faccinn et al., and Innes do not disclose or suggest, for example, transmitting the SIP call request message to a gateway, the gateway being configured to complete the call if the header is detected and not complete the call if the header is not detected, as recited in claim 15. The Examiner admitted that D'Amico et al., Riggins, and

Faccinn et al. do not disclose these features, but alleged that Innes discloses the features and cited column 2, lines 5-16, column 2, line 60 - column 3, line 4, column 9, lines 36-56, and claims 4, 14, and 20, of Innes for support. Office Action, page 16. Appellants submit that the disclosure of Innes provides absolutely no support for the Examiner's allegation.

At column 2, lines 5-16, Innes discloses:

Accordingly, the present invention provides a method for establishing a server initiated high-level protocol communications session between a server and a client on a mobile computing device, wherein said mobile computing device supports a low-level protocol for both inbound and outbound calls, and a high-level protocol for outbound calls only, said method comprising the steps of: initiating a first call from said server to said client using the low-level protocol; responsive to detecting said first call at the client, initiating a second call from said client to said server; and responsive to receiving the second call at the server, establishing said communications session.

In this section, Innes discloses initiating a first call from a server to a client, responsive to detecting the first call at the client, initiating a second call from the client to the server. Nowhere in this section, or elsewhere, does Innes disclose or suggest transmitting a SIP call request message to a gateway, where the gateway is configured to complete the call if a header, including a server identifier, is detected and not complete the call if the header is not detected, as recited in claim 15.

At column 2, line 60 - column 3, line 4, Innes discloses:

Note that several variations on possible on the form and handling of the initial call from the server to the client. One possibility is to use SMS messaging, a feature of many mobile telephone networks, as the low level protocol. This is generally supported natively by many mobile devices. Another possibility is to use network communication protocols at the client as the low-level protocol to detect the caller id of the server. Thus if the first call is determined as originating from a particular server based on the caller id (whether or not the mobile device actually answers the call itself) this can then be used to trigger an outbound call back from the client to the server.

In this section, Innes discloses that if a first call received by a client from a server is determined to be originating from a particular server, based on the server's caller id, an outbound call is

triggered from the client to the server. Innes does not disclose that the server's caller id is included in a header of the first call, as would be required by claim 15 under the Examiner's interpretation of Innes. Nevertheless, even assuming, for the sake of argument, that the server's caller id is included in a header of the first call (a point that Appellants do not concede), nowhere in this section, or elsewhere, does Innes disclose or suggest that the call is completed if the server's caller id is detected. Instead, Innes specifically discloses that a second call is initiated (i.e., an outbound call from the client to the server) upon detecting the server's caller id. Column 2, line 67 - column 3, line 4. Thus, Innes does not disclose or suggest transmitting a SIP call request message to a gateway, where the gateway is configured to complete the call if a header, including a server identifier, is detected and not complete the call if the header is not detected, as recited in claim 15.

At column 9, lines 36-56, Innes discloses:

Although the preferred embodiment uses a specific keyword in the trigger message to prompt the outbound call from the PDA to the server, there are many other possibilities, such as using caller id from the server. Thus if the number of a known server is recognised with respect to an incoming call, then this could directly trigger the return call from the client to the server (and potentially also the mailbox synchronisation), irrespective of whether the initial call is actually answered at the PDA. Alternatively, the server might use an SMS message to the PDA as the trigger message. This has the added advantage that such a message will be queued if the PDA is switched off for future delivery. It will be appreciated that both of these approaches are possible independent of whether the mail or travel server contacts the PDA directly, or whether the message server is used as an intermediary. Note however that the communication with the client via a basic serial protocol as in the preferred embodiment implies the solution is not limited to a specific infrastructure, unlike GSM SMS messages or caller id in most situations, and so can work internationally.

In this section, Innes discloses the caller id from the server can be used to trigger a return (outbound) call from the client to the server. Innes does not disclose that the server's caller id is included in a header of the incoming call, as would be required by claim 15 under the Examiner's

interpretation of Innes. Nevertheless, even assuming, for the sake of argument, that the server's caller id is included in a header of the incoming call (a point that Appellants do not concede), nowhere in this section, or elsewhere, does Innes disclose or suggest that the call is completed if the server's caller id is detected. Instead, Innes specifically discloses that a return call is initiated (i.e., an outbound call from the client to the server) upon detecting the server's caller id. Column 9, lines 39-44. Thus, Innes does not disclose or suggest transmitting a SIP call request message to a gateway, where the gateway is configured to complete the call if a header, including a server identifier, is detected and not complete the call if the header is not detected, as recited in claim 15.

In claims 4, 14, and 20, Innes discloses that the low-level protocol provides the caller id of the server to the client. Nowhere in this section, or elsewhere, does Innes disclose or suggest transmitting a SIP call request message to a gateway, where the gateway is configured to complete the call if a header, including a server identifier, is detected and not complete the call if the header is not detected, as recited in claim 15.

The Examiner alleged that returning a call, as disclosed by Innes, is equivalent to completing a call. Office Action, page 8. Appellants submit that there is no merit to the Examiner's allegation. Innes specifically discloses placing a separate call (i.e., an outbound call from the client to the server) upon detecting the server's caller id. Column 9, lines 39-44. Thus, Innes does not disclose or suggest transmitting a SIP call request message to a gateway, where the gateway is configured to complete the call if a header, including a server identifier, is detected and not complete the call if the header is not detected, as recited in claim 15.

The Examiner alleged that it would have been obvious to include the teachings of Innes

in D'Amico et al. for the purpose of establishing a server initiated high level protocol communications session between a server and a client on a mobile computing device. Office Action, page 16. Appellants submit that the Examiner's motivation statement falls short of establishing a prima facie case of obviousness with regard to claim 15.

As stated above, the Examiner is required to make the factual inquiries mandated by Graham v. John Deere Co. In this regard, the Examiner provided a motivation to combine Innes and D'Amico et al. Appellants submit that one of ordinary skill would not have been motivated to combine Innes and D'Amico et al. in the manner suggested by the Examiner.

D'Amico et al. discloses a caller pays feature for use in a cellular communication network. Column 8, line 53 - column 9, line 10. D'Amico et al. has absolutely nothing to do with server initiated high level protocol communications sessions. Therefore, contrary to the Examiner's allegation, combining the disclosure of adding a header to a call request message where the header includes a server identifier and transmitting the call request message to a client equipment, where the client equipment is configured to complete the call if the header is detected, as allegedly disclosed by Innes, into the cellular communications system of D'Amico et al. would not cause the D'Amico et al. cellular communications system to establish a server initiated high level protocol communications session between a server and a client on a mobile computing device. Accordingly, Appellants submit that the Examiner's motivation statement falls short of establishing a prima facie case of obviousness.

Further, the Examiner has not provided any reasonable explanation of how to establish a server initiated high level protocol communications session in the D'Amico et al. system, why adding a header to a call request message in the D'Amico et al. system would permit the alleged

benefit of permitting a server initiated high level protocol communications session to be established, or why one of ordinary skill in the art at the time of Appellants' invention would seek to obtain the alleged benefit of permitting a server initiated high level protocol communications session to be established in the D'Amico et al. system. Therefore, the Examiner's allegation falls short of establishing a prima facie case of obviousness with regard to claim 15.

For at least these reasons, it is respectfully submitted that claim 15 is patentable over D'Amico et al., Riggins, Faccinn et al., and Innes, whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 15 is respectfully requested.

2. Claims 16 and 17.

Dependent claim 16 recites checking the SIP call request message for the presence of a header, the header including a server identifier; and completing the call if the header is detected.

Initially, claim 16 depends from claim 1. The disclosure of Innes does not cure the deficiencies in the disclosures of D'Amico et al., Riggins, and Faccinn et al. identified above with regard to claim 1. Claim 16 is, therefore, patentable over D'Amico et al., Riggins, Faccinn et al., and Innes for at least the reasons given with regard to claim 1.

Further, D'Amico et al., Riggins, Faccinn et al., and Innes do not disclose or suggest, for example, completing the call if the header, including a server identifier, is detected, as recited in claim 16. The Examiner admitted that D'Amico et al., Riggins, and Faccinn et al. do not disclose these features, but alleged that Innes discloses the features and cited column 2, lines 5-16, column 2, line 60 - column 3, line 4, column 9, lines 36-56, and claims 4, 14, and 20, of Innes for

support. Office Action, page 16. Appellants submit that the disclosure of Innes provides absolutely no support for the Examiner's allegation for at least reasons similar to the reasons given with regard to claim 15.

For at least these reasons, it is respectfully submitted that claim 16 is patentable over D'Amico et al., Riggins, Faccinn et al., and Innes, whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 16 is respectfully requested.

Claim 17 depends from claim 16. Claim 17 is, therefore, also patentable over D'Amico et al., Riggins, Faccinn et al., and Innes, whether taken alone or in any reasonable combination, under 35 U.S.C. § 103 for at least the reasons given with regard to claim 16.

3. Claim 64.

Dependent claim 64 recites that the processor is further programmed to add a header to the SIP call request message, the header including a server identifier identifying the server system that forwards the call request message; and transmit the SIP call request message and header to a network gateway.

Initially, claim 64 depends from claim 61. The disclosure of Innes does not cure the deficiencies in the disclosures of D'Amico et al., Riggins, and Faccinn et al. identified above with regard to claim 61. Claim 64 is, therefore, patentable over D'Amico et al., Riggins, Faccinn et al., and Innes for at least the reasons given with regard to claim 61.

The Examiner alleged that it would have been obvious to include the teachings of Innes in D'Amico et al. for the purpose of establishing a server initiated high level protocol communications session between a server and a client on a mobile computing device. Office



Action, page 16. Appellants submit that the Examiner's motivation statement falls short of establishing a prima facie case of obviousness with regard to claim 64 for at least reasons similar to the reasons given with regard to claim 15.

For at least these reasons, it is respectfully submitted that claim 64 is patentable over D'Amico et al., Riggins, Faccinn et al., and Innes, whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 64 is respectfully requested.

**C. The Rejection of Claims 30 and 33 Under 35 U.S.C. § 103(a) Based on D'Amico et al., Riggins, Faccinn et al., and Fletcher et al. Should be Reversed.**

1. Claim 30.

Dependent claim 30 recites that the gateway provides a network operating support system with the client billing tag and call statistics after receiving the SIP call request message from the SIP server.

Claim 30 depends from claim 28. The disclosure of Fletcher et al. does not cure the deficiencies in the disclosures of D'Amico et al., Riggins, and Faccinn et al. identified above with regard to claim 28. Claim 30 is, therefore, patentable over D'Amico et al., Riggins, Faccinn et al., and Fletcher et al. for at least the reasons given with regard to claim 28.

For at least these reasons, it is respectfully submitted that claim 30 is patentable over D'Amico et al., Riggins, Faccinn et al., and Fletcher et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 30 is respectfully requested.

## 2. Claim 33.

Dependent claim 33 recites providing, by the gateway, a network operating support system with the client billing tag and at least one call statistic after the call is completed.

Claim 33 depends from claim 32. The disclosure of Fletcher et al. does not cure the deficiencies in the disclosures of D'Amico et al., Riggins, and Faccinn et al. identified above with regard to claim 32. Claim 33 is, therefore, patentable over D'Amico et al., Riggins, Faccinn et al., and Fletcher et al. for at least the reasons given with regard to claim 32.

For at least these reasons, it is respectfully submitted that claim 33 is patentable over D'Amico et al., Riggins, Faccinn et al., and Fletcher et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 33 is respectfully requested.

**D. The Rejection of Claims 38-42 and 66-68 Under 35 U.S.C. § 103(a) Based on D'Amico et al., Innes, and Faccinn et al. Should be Reversed.**

## 1. Claim 38.

Independent claim 38 is directed to a computer-readable medium having computer executable instructions for performing a method for placing a call between a first client and a second client. The computer-readable medium comprises instructions for receiving a SIP call request message; instructions for adding a header to the SIP call request message, the header including a server identifier to identify a server from which the SIP call request message was received; and instructions for transmitting the SIP call request message and the header to a network gateway.

D'Amico et al., Innes, and Faccinn et al., whether taken alone or in any reasonable combination, do not disclose or suggest the combination of features recited in claim 38. For example, D'Amico et al., Innes, and Faccinn et al. do not disclose or suggest instructions for adding a header to a SIP call request message, the header including a server identifier to identify a server sending the SIP call request message, as recited in claim 38. The Examiner alleged that Innes discloses these features. Appellants disagree.

Innes does not even mention SIP. Therefore, Innes cannot disclose or remotely suggest instructions for adding a header to a SIP call request message, let alone instructions for adding a header to a SIP call request message, where the header includes a server identifier to identify a server sending the SIP call request message, as further recited in claim 38.

The Examiner further alleged that it would have been obvious to include the teachings of Innes in D'Amico et al. for the purpose of establishing a server initiated high level protocol communications session between a server and a client on a mobile computing device. Office Action, page 18. Appellants submit that the Examiner's motivation statement falls short of establishing a prima facie case of obviousness with regard to claim 38 for at least reasons similar to the reasons given with regard to claim 15.

Claim 38 also recites receiving a SIP call request message. The Examiner alleged that Faccinn et al. discloses this feature. Office Action, page 18. The Examiner alleged that it would have been obvious to use the SIP protocol with call request messages in the systems of D'Amico et al. and Innes because "doing so would have been to allow for joint billing for GPRS services and IP telephony services." Office Action, page 18. Appellants submit that the Examiner's allegation lacks merit for at least reasons similar to the reasons given with regard to claim 1.

For at least these reasons, it is respectfully submitted that claim 38 is patentable over D'Amico et al., Innes, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 38 is respectfully requested.

2. Claim 39.

Dependent claim 39 recites that the gateway is configured to complete the call if the header is present and not complete the call if the header is not present.

Initially, claim 39 depends from claim 38. Claim 39 is, therefore, patentable over D'Amico et al., Innes, and Faccinn et al. for at least the reasons given with regard to claim 38.

D'Amico et al., Innes, and Faccinn et al., whether taken alone or in any reasonable combination, do not disclose or suggest a gateway that is configured to complete the call if the header, including the server identifier, is present and not complete the call if the header is not present, as recited in claim 39.

The Examiner alleged that Innes discloses the features and cited column 2, lines 5-16, column 2, line 60 - column 3, line 4, column 9, lines 36-56, and claims 4, 14, and 20, of Innes for support. Office Action, page 18. Appellants submit that the disclosure of Innes provides absolutely no support for the Examiner's allegation for at least reasons similar to the reasons given with regard to claim 15.

For at least these reasons, it is respectfully submitted that claim 39 is patentable over D'Amico et al., Innes, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 39 is respectfully requested.

3. Claims 40 and 42.

Independent claim 40 is directed to a computer-readable medium having computer

executable instructions for performing a method for placing a call between a first client and a second client. The computer-readable medium comprises instructions for receiving a SIP call request message; instructions for checking the SIP call request message for a server identifier in a security header appended to the SIP call request message, the server identifier identifying a server from which the SIP call request message was received; and instructions for completing the call based on existence of the server identifier in the security header.

D'Amico et al., Innes, and Faccinn et al., whether taken alone or in any reasonable combination, do not disclose or suggest the combination of features recited in claim 40. For example, D'Amico et al., Innes, and Faccinn et al. do not disclose or suggest instructions for checking the SIP call request message for a server identifier in a security header appended to the SIP call request message, the server identifier identifying a server from which the SIP call request message was received, as recited in claim 40. The Examiner did not address this feature and, therefore, did not establish a prima facie case of obviousness with regard to claim 40.

Instead, the Examiner generally alleged that Innes discloses adding a header to a call request message, where the header includes a server id to identify a server sending the call request message. Office Action, page 7. Innes does not disclose or suggest, however, a security header appended to a call request message. Instead, Innes simply discloses that a client can detect the caller id of a server. Column 2, lines 65-67. Such a disclosure falls short of rendering obvious instructions for checking a call request message for a server identifier in a security header appended to the call request message, the server identifier identifying a server from which the call request message was received. Thus, Innes cannot disclose or suggest instructions for checking the SIP call request message for a server identifier in a security header appended to

the SIP call request message, the server identifier identifying a server from which the SIP call request message was received, as recited in claim 40.

The Examiner alleged that it would have been obvious to include the teachings of Innes in D'Amico et al. for the purpose of establishing a server initiated high level protocol communications session between a server and a client on a mobile computing device. Office Action, page 18. Appellants submit that the Examiner's motivation statement falls short of establishing a prima facie case of obviousness with regard to claim 40 for at least reasons similar to the reasons given with regard to claim 15.

Claim 40 also recites receiving a SIP call request message. The Examiner alleged that Faccinn et al. discloses this feature. Office Action, page 18. The Examiner alleged that it would have been obvious to use the SIP protocol with call request messages in the systems of D'Amico et al. and Innes because "doing so would have been to allow for joint billing for GPRS services and IP telephony services." Office Action, page 18. Appellants submit that the Examiner's allegation lacks merit for at least reasons similar to the reasons given with regard to claim 1.

For at least these reasons, it is respectfully submitted that claim 40 is patentable over D'Amico et al., Innes, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 40 is respectfully requested.

Claim 42 depends from claim 40. Claim 42 is, therefore, also patentable over D'Amico et al., Innes, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103 for at least the reasons given with regard to claim 40.

4. Claim 41.

Dependent claim 41 recites that the call is completed if the security header is present.

Initially, claim 41 depends from claim 40. Claim 41 is, therefore, patentable over D'Amico et al., Innes, and Faccinn et al. for at least the reasons given with regard to claim 40.

Further, D'Amico et al., Innes, and Faccinn et al., whether taken alone or in any reasonable combination, do not disclose or suggest that the call is completed if the security header is present, as recited in claim 41.

The Examiner alleged that Innes discloses this feature and cited column 2, lines 5-16, column 2, line 60 - column 3, line 4, column 9, lines 36-56, and claims 4, 14, and 20, of Innes for support. Office Action, page 18. Appellants submit that the disclosure of Innes provides absolutely no support for the Examiner's allegation for at least reasons similar to the reasons given with regard to claim 15.

For at least these reasons, it is respectfully submitted that claim 41 is patentable over D'Amico et al., Innes, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 41 is respectfully requested.

5. Claims 66-68.

Independent claim 66 is directed to a network gateway system for placing a call between a first client and a second client. The system comprises a communications interface for establishing a call with a circuit switched network; and a processor coupled to the communications interface, the processor being programmed to receive a SIP call request message, check the SIP call request message for existence of a security header appended to the SIP call request message, the security header including a server identifier identifying a server that forwarded the SIP call request message, and complete the call based on the existence of the security header including the server identifier.

D'Amico et al., Innes, and Faccinn et al., whether taken alone or in any reasonable combination, do not disclose or suggest the combination of features recited in claim 66. For example, D'Amico et al., Innes, and Faccinn et al. do not disclose or suggest a processor to check a SIP call request message for existence of a security header appended to the SIP call request message, the security header including a server identifier identifying a server that forwarded the SIP call request message for at least reasons similar to the reasons given with regard to claim 40.

D'Amico et al., Innes, and Faccinn et al. also do not disclose or suggest a processor to complete the call based on the existence of the security header, including the server identifier, as further recited in claim 66. The Examiner alleged that Innes discloses that the client is configured to complete the call (return call) if the header is detected and inherently not complete the call if the header is not detected. Office Action, page 18. Appellants disagree for at least reasons similar to the reasons given with regard to claim 15.

The Examiner alleged that it would have been obvious to include the teachings of Innes in D'Amico et al. for the purpose of establishing a server initiated high level protocol communications session between a server and a client on a mobile computing device. Office Action, page 18. Appellants submit that the Examiner's motivation statement falls short of establishing a prima facie case of obviousness with regard to claim 66 for at least reasons similar to the reasons given with regard to claim 15.

Claim 66 also recites receiving a SIP call request message. The Examiner alleged that Faccinn et al. discloses receiving a SIP call request message. Office Action, page 18. The Examiner alleged that it would have been obvious to use the SIP protocol with call request messages in the systems of D'Amico et al. and Innes because "doing so would have been to allow



for joint billing for GPRS services and IP telephony services." Office Action, page 18.

Appellants submit that the Examiner's allegation lacks merit for at least reasons similar to the reasons given with regard to claim 1.

For at least these reasons, it is respectfully submitted that claim 66 is patentable over D'Amico et al., Innes, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 66 is respectfully requested.

Claims 67 and 68 depend from claim 66. Claims 67 and 68 are, therefore, also patentable over D'Amico et al., Innes, and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103 for at least the reasons given with regard to claim 66.

**E. The Rejection of Claims 43, 44, 47-49, and 79 Under 35 U.S.C. § 103(a) Based on D'Amico et al., Riggins, and Hluchvj et al. Should be Reversed.**

1. Claims 43, 44, and 47-49.

Independent claim 43 is directed to a system for placing a call between a first client and a second client. The system comprises a SIP server configured to challenge a device that originated the call by requesting the device to authenticate itself, the device performing a first authentication process based on a username and password associated with the device to generate a first authentication result as a result of authenticating itself, process a SIP call request message received from the first client to determine an authentic originating client by performing a second authentication process based on the username and the password associated with the device to generate a second authentication result and comparing the second authentication result with the first authentication result, obtain a client billing tag that identifies the authentic originating client

as a party responsible for paying for the call; and a network gateway coupled to the SIP server, the network gateway being configured to provide at least one of the first client or the second client conditional access to a public switched telephone network.

D'Amico et al., Riggins, and Hluchyj et al., whether taken alone or in any reasonable combination, do not disclose or suggest the combination of features recited in claim 43. For example, D'Amico et al., Riggins, and Hluchyj et al. do not disclose or suggest a SIP server configured to challenge a device that originated the call by requesting the device to authenticate itself, the device performing a first authentication process based on a username and password associated with the device to generate a first authentication result as a result of authenticating itself, and process a SIP call request message received from the first client to determine an authentic originating client by performing a second authentication process based on the username and the password associated with the device to generate a second authentication result and comparing the second authentication result with the first authentication result, as recited in claim 43.

The Examiner admitted that D'Amico et al. does not disclose or suggest these features. Office Action, page 20. The Examiner alleged that Riggins discloses these features and cited column 10, line 62 - column 11, line 13, of Riggins for support. Office Action, pages 20-21. Appellants disagree for at least reasons similar to the reasons given with regard to claim 1.

Further, Riggins does not disclose or suggest a SIP server or a SIP call request message. Therefore, contrary to the Examiner's allegation, Riggins cannot disclose or suggest a SIP server configured to challenge a device that originated the call by requesting the device to authenticate itself, the device performing a first authentication process based on a username and password

associated with the device to generate a first authentication result as a result of authenticating itself, and process a SIP call request message received from the first client to determine an authentic originating client by performing a second authentication process based on the username and the password associated with the device to generate a second authentication result and comparing the second authentication result with the first authentication result, as recited in claim 43.

The Examiner alleged that it would have been obvious to one of ordinary skill to include the teaching of Riggins in D'Amico et al. for the "purpose of securing access to services in a computer network." Office Action, page 21. Appellants submit that the Examiner's motivation statement falls short of establishing a prima facie case of obviousness with regard to claim 43 for at least reasons similar to reasons given with regard to claim 1.

The Examiner alleged that Hluchyj et al. discloses the use of a packet network server "that reads on the SIP server" and "teaches the use of a gateway connected to the server to provide access to the telephone network." Office Action, page 21. The Examiner alleged that it would have been obvious to one of ordinary skill to include the packet network server and the gateway connected to a server in the D'Amico et al. and Riggins system "in order to reduce long distance or toll charge to the subscribers." Office Action, page 21. Appellants submit that the Examiner's motivation statement falls short of establishing a prima facie case of obviousness with regard to claim 43.

D'Amico et al. and Riggins do not even mention SIP. The Examiner has not provided any reasonable explanation of how to implement the SIP protocol in the D'Amico et al. system, or why simply adding a packet network server and a gateway connected to a server in the

D'Amico et al. system would reduce long distance or toll charges. Therefore, the Examiner's allegation falls short of establishing a prima facie case of obviousness with regard to claim 43.

For at least these reasons, it is respectfully submitted that claim 43 is patentable over D'Amico et al., Riggins, and Hluchyj et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 43 is respectfully requested.

Claims 44 and 47-49 depend from claim 43. Claims 44 and 47-49 are, therefore, also patentable over D'Amico et al., Riggins, and Hluchyj et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103 for at least the reasons given with regard to claim 43.

2. Claim 79.

Dependent claim 79 recites that the SIP server is further configured to receive the username and the first authentication result from the device, determine a password that corresponds to the username, perform a hash function based on the username and password, and determine whether a result of the hash function matches the first authentication result.

Initially, claim 79 depends from claim 43. Claim 79 is, therefore, patentable over D'Amico et al., Riggins, and Hluchyj et al. for at least the reasons given with regard to claim 43.

Further, D'Amico et al., Riggins, and Hluchyj et al. do not disclose or suggest a SIP server that is configured to, for example, perform a hash function based on the username and password, as recited in claim 79. The Examiner alleged that Riggins discloses this feature, and cited column 10, line 62 - column 11, line 13, of Riggins for support. Office Action, page 4.

Appellants submit that the disclosure of Riggins provides no support for the Examiner's allegation for at least reasons similar to the reasons given with regard to claim 75.

For at least these reasons, it is respectfully submitted that claim 79 is patentable over D'Amico et al., Riggins, and Hluchyj et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 79 is respectfully requested.

**F. The Rejection of Claims 45 and 46 Under 35 U.S.C. § 103(a) Based on D'Amico et al., Riggins, Hluchyj et al., and Faccinn et al. Should be Reversed.**

1. Claims 45 and 46.

Dependent claim 45 recites that the SIP server is configured to insert the client billing tag into the SIP call request message and transmit the call request message to the network gateway.

Claim 45 depends from claim 43. The disclosure of Faccinn et al. does not cure the deficiencies in the disclosures of D'Amico et al., Riggins, and Hluchyj et al. identified above with regard to claim 43. Claim 45 is, therefore, patentable over D'Amico et al., Riggins, Hluchyj et al., and Faccinn et al. for at least the reasons given with regard to claim 43.

For at least these reasons, it is respectfully submitted that claim 45 is patentable over D'Amico et al., Riggins, Hluchyj et al., and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 45 is respectfully requested.

Claim 46 depends from claim 45. Claim 46 is, therefore, also patentable over D'Amico et al., Riggins, Hluchyj et al., and Faccinn et al., whether taken alone or in any reasonable combination, under 35 U.S.C. § 103 for at least the reasons given with regard to claim 45.

**G. The Rejection of Claims 50 and 51 Under 35 U.S.C. § 103(a) Based on D'Amico et al., Riggins, Hluchyj et al., and Innes Should be Reversed.**

The Examiner stated that claims 50 and 51 are rejected "over the grounds of rejection as applied to claim 41 above . . . ." Office Action, page 23. Appellants understand that the Examiner intended to cite to claim 43, and not to claim 41, as the Examiner later cited to claim 43. Office Action, page 23.

1. Claim 50.

Dependent claim 50 recites that the SIP server is configured to add a header to the SIP call request message.

Claim 50 depends from claim 43. The disclosure of Innes does not cure the deficiencies in the disclosures of D'Amico et al., Riggins, and Hluchyj et al. identified above with regard to claim 43. Claim 50 is, therefore, patentable over D'Amico et al., Riggins, Hluchyj et al., and Innes for at least the reasons given with regard to claim 43.

For at least these reasons, it is respectfully submitted that claim 50 is patentable over D'Amico et al., Riggins, Hluchyj et al., and Innes, whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 50 is respectfully requested.

## 2. Claim 51.

Dependent claim 51 recites that the network gateway is configured to complete the call if the header is detected and not complete the call if the header is not detected.

Initially, claim 51 depends from claim 50. Claim 51 is, therefore, patentable over D'Amico et al., Riggins, Hluchyj et al., and Innes for at least the reasons given with regard to claim 50.

Further, D'Amico et al., Riggins, Hluchyj et al., and Innes, whether taken alone or in any reasonable combination, do not disclose or suggest a network gateway is configured to complete the call if the header is detected and not complete the call if the header is not detected, as recited in claim 51.

The Examiner alleged that Innes discloses the features and cited column 2, lines 5-16, column 2, line 60 - column 3, line 4, column 9, lines 36-56, and claims 4, 14, and 20, of Innes for support. Office Action, page 23. Appellants submit that the disclosure of Innes provides absolutely no support for the Examiner's allegation for at least reasons similar to the reasons given with regard to claim 15.

The Examiner alleged that it would have been obvious to include the teachings of Innes in D'Amico et al. for the purpose of establishing a server initiated high level protocol communications session between a server and a client on a mobile computing device. Office Action, pages 23-24. Appellants submit that the Examiner's motivation statement falls short of establishing a prima facie case of obviousness with regard to claim 51 for at least reasons similar to the reasons given with regard to claim 15.

For at least these reasons, it is respectfully submitted that claim 51 is patentable over D'Amico et al., Riggins, Hluchyj et al., and Innes, whether taken alone or in any reasonable combination, under 35 U.S.C. § 103. Reversal of the rejection of claim 51 is respectfully requested.

#### VIII. CONCLUSION

In view of the foregoing arguments, Appellants respectfully solicit the Honorable Board to reverse the Examiner's rejections of claims 1-17, 27-51, 61-64, 66-68, and 75-80 under 35 U.S.C. § 103.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-1070 and please credit any excess fees to such deposit account.

Respectfully submitted,

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CLAIM APPENDIX

1. A method for placing a call between a first client and a second client, the method comprising:

receiving a SIP call request message;

challenging a device that originated the SIP call request message to authenticate itself, the device performing a first authentication process based on a username and a password associated with the device to generate a first authentication result as a result of authenticating itself;

authenticating the SIP call request message by performing a second authentication process based on the username and the password associated with the device to generate a second authentication result and comparing the second authentication result to the first authentication result;

identifying an authentic originating client when the second authentication result matches the first authentication result;

searching a database to determine whether the database includes a client billing tag that identifies the authentic originating client as a party responsible for paying for the call;

authorizing the call to be completed if the client billing tag is included in the database; and

not authorizing the call to be completed if the client billing tag is not included in the database.

2. The method of claim 1, further comprising:

inserting the client billing tag into the SIP call request message; and  
transmitting the SIP call request message to a gateway after the client billing tag is  
inserted into the SIP call request message.

3. The method of claim 2, further comprising providing, by the gateway, a network operating support system with the client billing tag.

4. The method of claim 1, wherein at least one of the first authentication process or the second authentication process includes performing a calculation using a hash algorithm.

5. The method of claim 1, further comprising evaluating a profile of the second client, the profile including information corresponding to at least one calling feature activated by the second client.

6. The method of claim 5, further comprising inserting, by a server, a client billing tag corresponding to the second client into the SIP call request message based on the at least one calling feature.

7. The method of claim 6, further comprising transmitting, by the server, the SIP call request message to a gateway after the client billing tag corresponding to the second client is inserted into the SIP call request message.

8. The method of claim 6, wherein a gateway provides a network operating support system with the client billing tag.

9. The method of claim 5, wherein the at least one calling feature includes a call forwarding command.

10. The method of claim 5, wherein the at least one calling feature includes a call transfer command.

11. The method of claim 1, further comprising:  
evaluating at least one calling feature activated by the second client;  
determining the authentic originating client based on the at least one calling feature;  
retrieving the client billing tag corresponding to the authentic originating client; and  
inserting the client billing tag corresponding to the authentic originating client into the SIP call request message.

12. The method of claim 11, further comprising transmitting, by a server, the call request message to a gateway after the client billing tag is inserted into the call request message.

13. The method of claim 11, wherein the at least one calling feature includes a call forwarding command.

14. The method of claim 11, wherein the at least one calling feature includes a call transfer command.

15. The method of claim 1, further comprising:  
adding a header to the SIP call request message, the header including a server identifier;  
and

transmitting the SIP call request message to a gateway, the gateway being configured to complete the call if the header is detected and not complete the call if the header is not detected.

16. The method of claim 1, further comprising:  
checking the SIP call request message for the presence of a header, the header including a server identifier; and  
completing the call if the header is detected.

17. The method of claim 16, wherein the call is not completed if the header is not detected.

27. A computer-readable medium having computer executable instructions for performing a method for placing a call between a first client and a second client, the computer-readable medium comprising:

instructions for receiving a call request message;

instructions for challenging a device that originated the call request message to authenticate itself, the device generating an authentication result as a result of authenticating itself;

instructions for authenticating the call request message based on the authentication result to identify an authentic originating client;

instructions for searching a database to identify whether the database includes a client billing tag that identifies the authentic originating client as a party responsible for paying for the call;

instructions for not authorizing the call to be completed if the database does not include the client billing tag;

instructions for authorizing the call to be completed if the database includes the client billing tag;

instructions for inserting the client billing tag into the call request message when the call is authorized to be completed; and

instructions for forwarding the call request message with the inserted client billing tag when the call is authorized to be completed.

28. A computer-readable medium having computer executable instructions for performing a method for placing a call between a first client and a second client, the computer-readable medium comprising:

instructions for receiving, by a SIP server, a SIP call request message;

instructions for challenging, by the SIP server, a device that originated the SIP call request message to authenticate itself, the device generating an authentication result as a result of authenticating itself;

instructions for authenticating, by the SIP server, the SIP call request message based on the authentication result to identify an authentic originating client;

instructions for searching, by the SIP server, a database to find a client billing tag that identifies the authentic originating client as a party responsible for paying for the call;

instructions for inserting, by the SIP server, the client billing tag into the SIP call request message; and

instructions for transmitting, by the SIP server, the SIP call request message to a gateway.

29. The computer-readable medium of claim 28, further comprising:

instructions for completing, by the SIP server, the call if the client billing tag is obtained; and

instructions for not completing, by the SIP server, the call if the client billing tag cannot be obtained.

30. The computer-readable medium of claim 28, wherein the gateway provides a network operating support system with the client billing tag and call statistics after receiving the SIP call request message from the SIP server.

31. A method for placing a call between a first client and a second client, the method comprising:

receiving a SIP call request message from the first client;

challenging a device that originated the SIP call request message to authenticate itself, the device generating an authentication result as a result of authenticating itself;

evaluating at least one calling feature in a profile of the second client;

determining an authentic originating client based on the at least one calling feature and the authentication result;

retrieving a client billing tag that identifies the authentic originating client as a party responsible for paying for the call; and

inserting the client billing tag into the SIP call request message.

32. The method of claim 31, further comprising transmitting, by a server, the SIP call request message to a gateway after the client billing tag is inserted into the SIP call request message.

33. The method of claim 32, further comprising providing, by the gateway, a network operating support system with the client billing tag and at least one call statistic after the call is completed.

34. The method of claim 31, wherein the at least one calling feature includes a call forwarding command.

35. The method of claim 31, wherein the at least one calling feature includes a call transfer command.

36. The method of claim 31, wherein the party responsible for paying for the call is the first client.

37. The method of claim 31, wherein the party responsible for paying for the call is the second client.

38. A computer-readable medium having computer executable instructions for performing a method for placing a call between a first client and a second client, the computer-readable medium comprising:

instructions for receiving a SIP call request message;

instructions for adding a header to the SIP call request message, the header including a server identifier to identify a server from which the SIP call request message was received; and

instructions for transmitting the SIP call request message and the header to a network gateway.

39. The computer-readable medium of claim 38, wherein the gateway is configured to complete the call if the header is present and not complete the call if the header is not present.



40. A computer-readable medium having computer executable instructions for performing a method for placing a call between a first client and a second client, the computer-readable medium comprising:

instructions for receiving a SIP call request message;

instructions for checking the SIP call request message for a server identifier in a security header appended to the SIP call request message, the server identifier identifying a server from which the SIP call request message was received; and

instructions for completing the call based on existence of the server identifier in the security header.

41. The computer-readable medium of claim 40, wherein the call is completed if the security header is present.

42. The computer-readable medium of claim 40, wherein the call is not completed if the header is not present.

43. A system for placing a call between a first client and a second client, the system comprising:

a SIP server configured to:

challenge a device that originated the call by requesting the device to authenticate itself, the device performing a first authentication process based on a username and

password associated with the device to generate a first authentication result as a result of authenticating itself,

process a SIP call request message received from the first client to determine an authentic originating client by performing a second authentication process based on the username and the password associated with the device to generate a second authentication result and comparing the second authentication result with the first authentication result,

obtain a client billing tag that identifies the authentic originating client as a party responsible for paying for the call; and

a network gateway coupled to the SIP server, the network gateway being configured to provide at least one of the first client or the second client conditional access to a public switched telephone network.

44. The system of claim 43, wherein the server transmits the SIP call request message to the network gateway if the client billing tag is obtained, and does not transmit the call request message to the network gateway if the client billing tag cannot be obtained.

45. The system of claim 43, wherein the SIP server is configured to insert the client billing tag into the SIP call request message and transmit the call request message to the network gateway.

46. The system of claim 45, further comprising a network operation support system coupled to the network gateway, the network gateway being configured to transmit the client billing tag to the network operation support system after the call is completed.

47. The system of claim 43, wherein the SIP server identifies the authentic originating client by evaluating a profile of the second client.

48. The system of claim 47, wherein the profile includes information corresponding to at least one calling feature activated by the second client.

49. The network of claim 48, wherein the SIP server inserts a client billing tag corresponding to the second client based on the at least one calling feature.

50. The network of claim 43, wherein the SIP server is configured to add a header to the SIP call request message.

51. The network of claim 50, wherein the network gateway is configured to complete the call if the header is detected and not complete the call if the header is not detected.

61. A server system for placing a call between a first client and a second client, the system comprising:

a database configured to store at least one client billing tag; and

a processor coupled to the database, the processor being programmed to:

challenge a device that originated the call by requesting the device to authenticate itself, the device performing a first authentication process based on a username and password associated with the device to generate a first authentication result as a result of authenticating itself,

process a SIP call request message to identify an authentic originating client by performing a second authentication process based on the username and the password associated with the device to generate a second authentication result and comparing the second authentication result with the first authentication result,

search the database to find the client billing tag that identifies the authentic originating client as a party responsible for paying for the call,

allow the call to be completed if the client billing tag is obtained, and

not allow the call to be completed if the client billing tag cannot be obtained.

62. The system of claim 61, wherein the processor is programmed to insert the client billing tag into the SIP call request message.

63. The system of claim 62, wherein the processor is programmed to transmit the SIP call request message with the client billing tag to a network gateway.

64. The system of claim 61, wherein the processor is further programmed to:

add a header to the SIP call request message, the header including a server identifier identifying the server system that forwards the call request message; and  
transmit the SIP call request message and header to a network gateway.

66. A network gateway system for placing a call between a first client and a second client, the system comprising:

a communications interface for establishing a call with a circuit switched network; and  
a processor coupled to the communications interface, the processor being programmed to:

receive a SIP call request message;

check the SIP call request message for existence of a security header appended to the SIP call request message, the security header including a server identifier identifying a server that forwarded the SIP call request message; and

complete the call based on the existence of the security header including the server identifier.

67. The system of claim 66, wherein the call is completed if the header exists.

68. The system of claim 66, wherein the call is not completed if the header does not exist.

75. The method of claim 1, wherein authenticating the call request message includes:

receiving the username and the first authentication result from the device,  
determining a password that corresponds to the username,  
performing a hash function based on the username and password, and  
determining whether a result of the hash function matches the first authentication result.

76. The method of claim 27, wherein authenticating the call request message includes:

receiving a user name and the authentication result from the device,  
determining a password that corresponds to the user name,  
performing a hash function based on the user name and password, and  
determining whether a result of the hash function matches the authentication result.

77. The method of claim 28, wherein authenticating the SIP call request message includes:

receiving a user name and the authentication result from the device,  
determining a password that corresponds to the user name,  
performing a hash function based on the user name and password, and  
determining whether a result of the hash function matches the authentication result.

78. The method of claim 31, wherein authenticating the SIP call request message includes:

receiving a user name and the authentication result from the device,

determining a password that corresponds to the user name,  
performing a hash function based on the user name and password, and  
determining whether a result of the hash function matches the authentication result.

79. The system of claim 43, wherein the SIP server is further configured to:  
receive the username and the first authentication result from the device,  
determine a password that corresponds to the username,  
perform a hash function based on the username and password, and  
determine whether a result of the hash function matches the first authentication result.

80. The system of claim 61, wherein the processor is further programmed to:  
receive the username and the first authentication result from the device,  
determine a password that corresponds to the username,  
perform a hash function based on the username and password, and  
determine whether a result of the hash function matches the first authentication result.

IX. EVIDENCE APPENDIX

None



X. RELATED PROCEEDINGS APPENDIX

None